CLAIMS

1. A mechanism comprising a main drive spindle (4) being driven by a power supply and rotatable axially; at least one eccentric element (1) being in communication with said drive spindle (4) and producing eccentric motion; at least one bearing means (5) surrounding the eccentric element (1); and at least one drive transmitting element (7), one of the terminals of the drive transmitting element (7) being connected to said eccentric bearing means (5) and the other terminal to a final drive spindle (8).

2. A mechanism according to Claim 1, characterized by comprising at least one final spindle bearing (12) connected to said final drive spindle (8) and said drive transferring element (7).

3. A mechanism according to claims 1 or 2, characterized by comprising a drive transferring spindle bearing (9) moving substantially axially in the drive transferring spindle (8), and the drive transferring spindle bearing (9) being in connection with a supporting piece (10).

4. A mechanism according to any of the foregoing claims, characterized in that said main drive spindle (4) comprises a main frame (2), whereon said supporting piece (10) and said final drive spindle (8) are positioned.

5. A mechanism according to any of the foregoing claims, characterized by comprising a bearing means (15) supporting a terminal unit to be operative at the other end of said final drive spindle (8).

6. A mechanism according to any of the foregoing claims, characterized by comprising a movable bearing (16) providing the connection of the final drive spindle (16) to the main frame (2).

7. A mechanism according to any of claims 1 to 3, characterized in that a bearing is provided that is fixed to the main frame at a lower or upper side of the final spindle bearing (12), respectively, when said final spindle bearing (12) is positioned to a point close to the upper or lower end of said final spindle (8).

8. A mechanism according to any of the foregoing claims, characterized by comprising a spring (18) provided on the lower side of said supporting piece (10) and a supporting piece (17) surrounding such spring (18) so that said final drive spindle (8) can displace on the axial direction.

9. A mechanism according to claims 1 and 8, characterized in that said bearing means (5) can rotate on the radial direction with respect to the longitudinal axis of said main drive spindle (4).

10. A mechanism according to any of the foregoing claims, characterized by comprising a bearing lower end (20) with a spherical formation provided on the lower end of said final drive spindle (8), and a sloped platform (21) provided in a rotating manner on the main frame (2), the platform (21) being in contact with said lower end (2) so that said final drive spindle (8) can displace on the axial direction.

11. A mechanism according to Claim 10, characterized by comprising a support (22) being supported with springs (18), and the support (22) being fixed to the spherically formed bearing lower end (20).

12. A mechanism according to claims 10 and 11, characterized by comprising a final spindle joint (19) provided between said support (22) and said final drive spindle (8).

13. A mechanism according to Claim 10, characterized by comprising a spring (18) provided on the lower region of a straight sliding bearing (77) carrying said final drive spindle (8).

14. A mechanism according to any of the foregoing claims, characterized by comprising a flexible tube means (27) provided on the lower side of said final drive spindle (8) and an air inlet (29) is provided for supplying air to said tube means (27) so that said final drive spindle (8) can displace on the axial direction.

15. A mechanism according to any of the foregoing claims, characterized by comprising an actuator means (30) positioned on the lower part of said final

drive spindle (8) so that said final drive spindle (8) can displace on the axial direction.

16. A mechanism according to any of the foregoing claims, characterized by comprising an actuator means (30) connected to a support (31) with one end supporting said final drive spindle (8) so that the latter (8) can displace on the axial direction.

17. A mechanism according to any of the foregoing claims, characterized by comprising a connection element (34) driven by the drive transferring spindle (7), the final drive spindle (8) is provided onto the connection element (34) for forming a group; and a group joint (38) connected to the connection element (34) for connecting a secondary group to the group.

18. A mechanism according to Claim 17, characterized by comprising a bar joint (39), a bar (40), and an actuator means (30) driving this bar (40), said bar joint (39) being connected to the connection element (34) of said secondary group (37) so that said secondary group (37) can rotate around the group joint (38).

19. A mechanism according to any of the foregoing claims, characterized by comprising an adapter support (41) connected to the terminal unit bearing (15).

20. A mechanism according to Claim 19, characterized in that said adapter support (41) comprises key channels (43) or threads providing the connection of the former (41) to said final drive spindle (8).

21. A mechanism according to any of the foregoing claims, characterized in that the mechanism is driven by a single drive transferring spindle (7), when said final drive spindle (8) is provided multiply.

22. A mechanism according to Claim 1, characterized by comprising multiple eccentric elements (1) connected to said main drive spindle (4), multiple

drive transferring spindles (7) connected to this eccentric elements (1), and multiple final drive spindles (8) connected to such spindles.

23. A mechanism according to any of the foregoing claims, characterized by comprising a threading group (47) positioned on the lowest position of said main drive spindle (4).

24. A mechanism according to any of the foregoing claims, characterized by comprising piping means (51) to provide fluid to said terminal unit bearing.

25. A mechanism according to Claim 24, characterized by comprising openings (52) embodied to enter said piping means (51) into said adapter support (41).

26. A mechanism according to Claim 1, characterized in that the mechanism is applicable for a group consisting of cleaning means, soil processing means, construction means, solid and fluid material orienting means.

27. A method for producing rotational movement without axial revolution, comprising the steps of

- rotating an axially rotating main drive spindle (4),
- converting the axial rotation into an eccentric motion by means of an eccentric element (1) connected to this main drive spindle (4),
- converting the eccentric motion essentially to linear motion by means of a drive transferring spindle (7) connected to one end of said eccentric element, and
- transferring the linear motion to the final drive spindle (8) connected to the other end of said drive transferring spindle (7) and thus rotating this drive spindle (8).

28. A method according to Claim 27, the circular motion of said final drive spindle (8) is an elliptic motion.

29. A mechanism comprising a main drive spindle (4) being driven by a power supply and rotatable axially; at least one eccentric element (1) being in communication with the main drive spindle (4) and producing eccentric motion; at least one bearing means (5) surrounding the eccentric element (1); at least one primary drive transferring element (7), one of the terminals of the drive transmitting element (7) being connected to the eccentric bearing means (5) and the other terminal to a primary plate (53) and at least one secondary drive transferring element connected to a secondary plate (54); and at least one final drive spindle which is supported in a movable or flexible manner with said primary plate (53) and said secondary plate (54).

30. A mechanism according to Claim 29, characterized in that the movable or flexible support is achieved by movable bearings (62, 63) comprised by said primary (53) and secondary plate (54) and supporting each said final drive spindle.

31. A mechanism according to Claim 29, characterized in that said at least one final drive spindle is driven by both the primary plate (53) and the secondary plate (54).

32. A mechanism comprising a main drive spindle being driven by a power supply and being rotatable axially; at least one eccentric element, being in communication with the main drive spindle and producing eccentric motion; at least one bearing means surrounding the eccentric element; at least one primary drive transferring element, one of the terminals of the drive transferring element being connected to the bearing means and the other terminal to a primary plate (53); and one axially rotating bearing (73) connected to a secondary plate (54); at least one ellipsoid bearing (66, 67) connected to said secondary plate (54); and at least one final drive spindle supported in a movable or flexible manner by said primary plate (53) and said secondary plate (54).

33. A mechanism according to Claim 32, characterized in that said at least one ellipsoid bearing (66, 67) comprises a spindle (68), a bearing (69) rotating

on the spindle, an eccentric spacer (70) positioned externally to the bearing, a rotating bearing (71) positioned externally to the spacer, and a connection support (72) being positioned externally to the rotating bearing and connected to the main frame.

34. A mechanism according to Claim 32, characterized in that said axially rotating bearing (73) comprises a drive transferring spindle (76) connected to an actuator, an eccentric spacer (77) connected to the spindle, a rotating bearing (75) positioned externally to the spacer, and a support (74) connected to the drive plate.

35. A mechanism comprising a main drive spindle being driven by a power supply and being rotatable axially; at least one eccentric element being in communication with the main drive spindle and producing eccentric motion; at least one bearing means surrounding the eccentric element; at least one primary drive transferring element, one terminal of the drive transferring element being connected to the bearing means and the other terminal to a primary plate (53) and at least one support (78) being connected to a secondary plate (54) by means of a number of actuators (79, 80, 81, 82); at least one ellipsoid bearing (66, 67) connected to the secondary plate (54), and at least one final drive spindle supported in a movable or flexible manner by said primary plate (53) and said secondary plate (54).

36. A mechanism according to Claim 35, characterized in that said actuators (79, 80, 81, 82) are driven by single or double impacted linear or fluid pressure.

37. A mechanism according to any of claims 35 or 36, characterized in that when said actuators are driven by fluid pressure, the fluid pressure and fluid amounts fed to the actuators are controlled by control elements featuring on/off or proportional control.

38. A mechanism according to any of the claims 35 to 37, characterized by comprising point or proportional sensors positioned on the actuators or the frame to provide said control elements with control data.

39. A mechanism according to Claim 35, characterized in that said at least one ellipsoid bearing (66, 67) comprises a spindle (68), a bearing (69) rotating on the spindle, one eccentric spacer (70) positioned externally to the bearing, a rotating bearing (71) positioned externally to the spacer, and one connection support (72) being positioned externally to the rotating bearing and is connected to the main frame.

40. A mechanism comprising a main drive spindle being driven by a power supply and rotatable axially; at least one eccentric element being in communication with the main drive spindle and producing eccentric motion; at least one bearing means surrounding the eccentric element; a primary plate (53), at least one support (78) connected to a second plate (54) by means of a number of actuators (79, 80, 81, 82); at least one ellipsoid bearing (66) providing the connection of said secondary plate (54) and said primary plate (53), and at least one final drive spindle being supported in a flexible or movable manner by said primary plate (53) and said secondary plate (54).

41. A mechanism according to Claim 40, characterized in that said actuators (79, 80, 81, 82) are driven by means of a single or double impacted linear or fluid pressure.

42. A mechanism according to one of claims 40 or 41, characterized in that when said actuators are driven with fluid pressure, the fluid pressure and fluid amounts fed to the actuators are controlled by control elements featuring on/off or proportional control.

43. A mechanism comprising a main drive spindle being driven by a power supply and rotatable axially; at least one eccentric element being in communication with the main drive spindle and producing eccentric motion; at least one bearing means surrounding the eccentric element; a primary plate (53), at least one support (78) connected to a second plate (54) by means of a number of actuators (79, 80, 81, 82); at least one movable bearing (84) providing the connection of said secondary plate (54) and said primary plate (53), a support (83) connecting one of the plates (53, 54), and

at least one final drive spindle, which is supported in a flexible or movable fashion by said primary plate (53) and said secondary plate (54)

44. An application of a mechanism according to any of the claims 29 to 43 to brushing units for cleaning purpose, characterized by comprising plates (53, 54) produced preferably from thermoplastic material (87) coated preferably with elastomer coatings (85, 86) having supporting functions, holes (88) provided on said movable plates for movable bearings, and a supporting piece (98) provided within the holes (88), and positioned between said drive plates (87).

45. An application of a mechanism according to claim 44 to brushing units for cleaning purpose, characterized by comprising a spindle (97) passing through the openings provided along said drive plates (53, 54), said spacers (90, 91); and said supporting piece (98) and accommodating at its tip a cylindrical bearing (94).

46. An application of a mechanism according to any of the claims 44 to 45 to brushing units for cleaning purpose, characterized by comprising a channel (100) provided along the vertical axis of said primary drive plate (53) up to the hole (88), another hole provided to said spacer (90), and an space having a "T" shape and the space being provided in the spindle (97)

47. An application of a mechanism according to any of the claims 44 to 46 to brushing units for cleaning purpose, characterized in that the cylindrical bearing (94) where the end of said "T" shaped opening is extending comprises a spring (95) and a spherical valve (96) in communication with this spring.

48. An application of a mechanism according to any of the claims 44 to 47 to brushing units for cleaning purpose, characterized by comprising an upper adapter (92) accommodating said cylindrical bearing (94) and a flexible pipe (93) positioned on the extremity of said cylindrical bearing.

49. An application of a mechanism according to any of the claims 44 to 48 to brushing units for cleaning purpose, characterized by comprising an additional fluid supplying element.

50. An application of a mechanism according to any of the claims 44 to 49 to brushing units for cleaning purpose, characterized in that said fluid supplying element comprises a spindle (105), a cylindrical bearing (103) positioned on the terminal of this spindle, a spherical valve (104) positioned within this cylindrical bearing, and a spring (103) that this valve is connected to.

51. An application of a mechanism according to any of the claims 44 to 50 to brushing units for cleaning purpose, characterized in that it comprises a liquid spraying piece (101) provided on the terminal of said cylindrical bearing (103).

52. An application of a mechanism according to any of the claims 44 to 51 to brushing units for cleaning purpose, characterized in that after a cleaning operation is performed, fiber-felt like elements are employed in place of such brushes in order to dry cleaned surfaces and in that fluids remaining on such surface are vacuumed by a vacuum pump in connection with such elements.

53. An application of a mechanism according to any of the claims 44 to 52 to brushing units for cleaning purpose, characterized in that said fiber-felt like elements are fibrous capable to transfer fluid towards said flexible pipe (93).

54. An application of a mechanism according to any of the claims 44 to 53 to brushing units for cleaning purpose, characterized in that a hot air blower is employed in place of said vacuum pump and that heat-resistant fiber-felt like elements are positioned in place of such brushes in order to polish such cleaned surface.

55. An application of a mechanism according to any of the claims 29 to 43 to brushing units for cleaning purpose, characterized in that said plates (53,

54) are produced preferably from thermoplastic material (87) coated with elastomer coatings (85, 86) for supporting purposes so as to define an integrated structure and comprises a support piece (98), which is provided within the holes (88) opening into said drive plates for flexible bearings and provided between said drive plates (87).

56. An application of a mechanism according to claim 55 to brushing units for cleaning purpose, characterized in that a layer of the parts of said flexible bearings at primary and secondary plates (87) are assembled with washer like materials to the drive plates; thus the final spindle is fixed to the integrated bearings by means of a fixation element or assembled into a hole within the integrated bearings in a tight-engaging manner; and flexible hoses are provided for fluid transfer to a point before such valve for cleaning purposes.

57. An application of a mechanism according to any of the claims 55 5to 56 to brushing units for cleaning purpose, characterized in that for cleaning, said each of such fluid transferring groups are independently formed at a single drive plate or connected to the related main carrier hoses by means of transferring hoses without using such drive plates.

58. An application of a mechanism according to any of the claims 55 to 57 to brushing units for cleaning purpose, characterized in that an annular rubber/polyurethane elastomer based material with a hole at the center is fastened to the single surfaces of drive plates (87) or between two plates forming a drive plate and thus a movable bearing is obtained by tightening them with proper-diameter washers with a hole in the center and screwing holes on both surfaces.